



# DC90-12



## CYCLING CAPACITY

20 Hour Rate     **90 Amp Hours**

## RESERVE CAPACITY

Reserve @25 AMPS     **140 Minutes**     Reserve @75 AMPS     **38 Minutes**

## ELECTRICAL SPECIFICATIONS

Nominal Voltage	<b>12 Volt</b>
C100	<b>99 AH</b>
C20	<b>90 AH</b>
C10	<b>81 AH</b>
C5	<b>74 AH</b>
CCA	<b>530 Amps</b>
CA or MCA	<b>630 Amps</b>
HPCA	<b>1000 Amps</b>
Internal Resistance	<b>4.5mΩ</b>

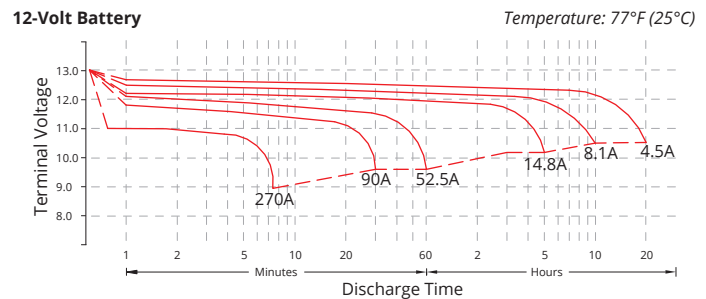
## MECHANICAL SPECIFICATIONS

Group Size	<b>27</b>	
Terminal Type	<b>M6</b>	
Terminal Torque	<b>See reverse side</b>	
Height (w/ terminal)	<b>8.46"</b>	<b>215mm</b>
Height (case only)	<b>8.31"</b>	<b>211mm</b>
Width	<b>6.65"</b>	<b>169mm</b>
Length	<b>12.09"</b>	<b>307mm</b>
Weight	<b>64.37 lbs.</b>	<b>29.2 kg</b>
Case Type	<b>ABS Plastic - Flame Res. Rating UL94-HB</b>	

## DISCHARGE TABLE (Constant Current)

Time	Amps	Rate
20hr	4.5	0.05CA
10hr	8.10	0.10CA
8hr	9.8	0.13CA
5hr	14.3	0.20CA
3hr	20.4	0.33CA
2hr	27.1	0.50CA
1hr	51.2	1.00CA

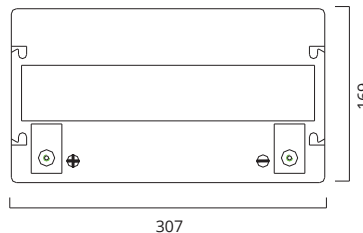
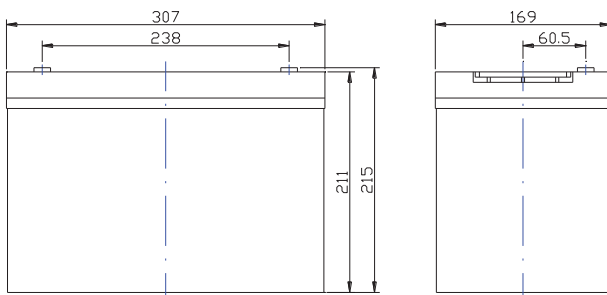
## DISCHARGE PROFILE (Constant Current)



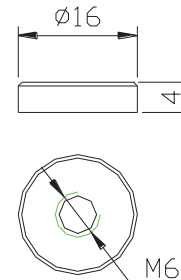
- All listed ratings are @ 100% SoC, T=77°F (25°C), 1.75VPC unless otherwise specified.

- Specifications listed are for estimation purposes only. Battery performance can vary depending on application. Battery design subject to change.

## BATTERY & TERMINAL DIMENSIONS (All units shown in mm)



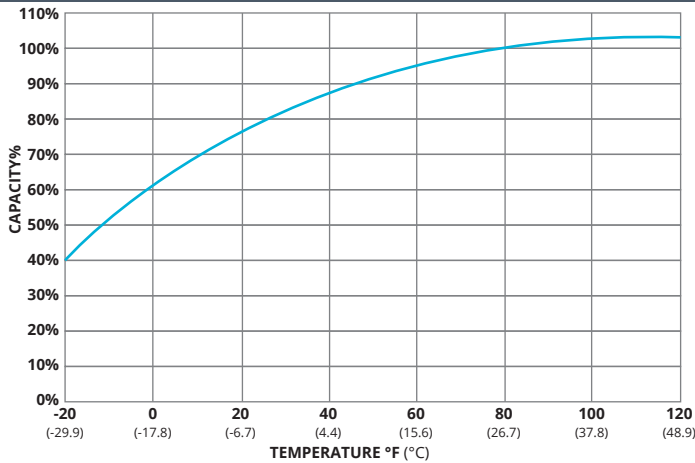
### Terminal: M6



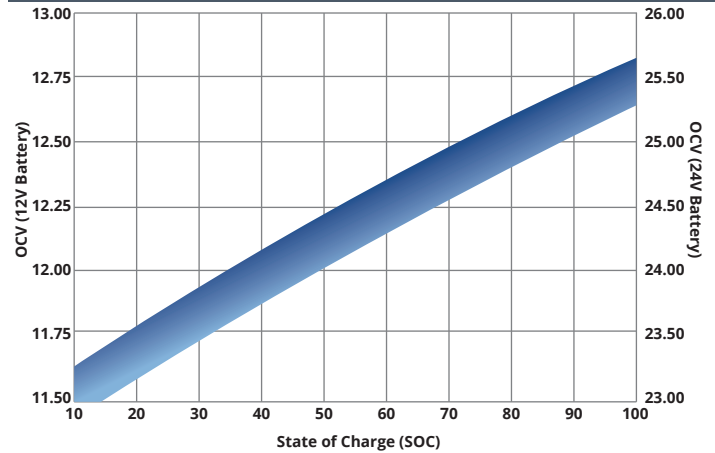
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## TEMPERATURE vs CAPACITY



## STATE of CHARGE (SOC) vs OPEN CIRCUIT VOLTAGE (OCV)

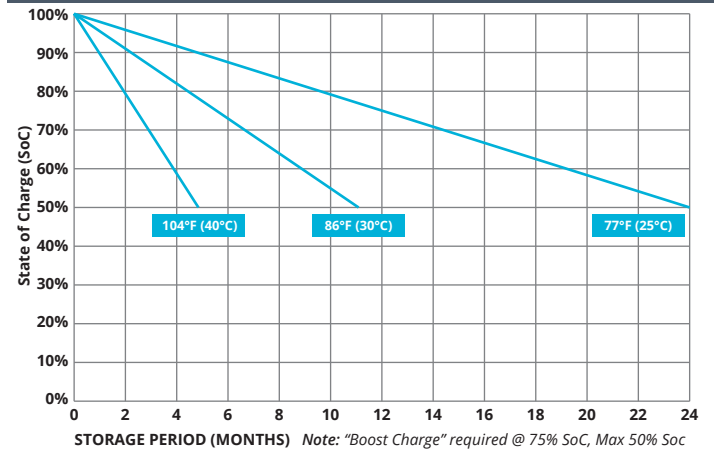


## CYCLE LIFE vs DEPTH of DISCHARGE (DOD)

\*(Based on BCI Testing @ 2-hr Rate)



## SELF DISCHARGE vs TIME/TEMPERATURE



## TEMPERATURE RANGE SPECIFICATIONS

Condition	Recommended	Maximum	Recommended	Maximum
Storage	5°F to 122°F	-40°F to 160°F	-15°C to 50°C	-40°C to 71°C
Operation	5°F to 104°F	-40°F to 160°F	-15°C to 40°C	-40°C to 71°C
Charge with TC	5°F to 122°F	-40°F to 160°F	-15°C to 50°C	-40°C to 71°C
Charge w/o TC	32°F to 104°F	5°F to 122°F	0°C to 40°C	-15°C to 50°C

\*TC= Temperature Compensation

## CHARGE VOLTAGES

Charge Stage	Battery Voltages			
	12V	24V	36V	48V
Bulk	14.7V	29.4V	44.1V	58.8V
Absorption	14.7V	29.4V	44.1V	58.8V
Float	13.6V	27.2V	40.8V	54.6V

TC Factor: (-2mV/°F/cell) or (-4mV/°C/cell)

## TERMINAL TORQUE SPECS (applicable values are highlighted)

M6	M8	M10	M6M (Stud)	M8M (Stud)	M10M (Stud) & 3/8" Stud	FR45	TP06 (AP)	TP08/TP68 (AP)	AP
3.3-4.8ft-lbs	5.2-6.7ft-lbs	8.1-10.3ft-lbs	2.6-3.7ft-lbs	4.4-5.9ft-lbs	7.4-8.8ft-lbs	4.8-6.3ft-lbs	2.6-3.3ft-lbs	4.6-6.3ft-lbs	4.2-5.8ft-lbs
40-57.5lbs-in	62-80lbs-in	97-124lbs-in	31-44lbs-in	53-71lbs-in	88.5-106lbs-in	57-75lbs-in	31-40lbs-in	55-75lbs-in	50-70lbs-in
4.5-6.5Nm	7-9Nm	11-14Nm	3.5-5Nm	6-8Nm	10-12Nm	6.5-8.5Nm	3.5-4.5Nm	6.2-8.5Nm	5.6-7.9Nm



9001:2008 Quality Management System  
 14001:2004 Environmental Management System  
 18001:2007 Occupational Health & Safety Management System



DELIVERY APPROVED!  
**LAND, SEA  
 & AIR**

Fullriver batteries are sealed lead acid batteries made with Absorbed Glass Mat (AGM) technology. The electrolyte is absorbed into the fiberglass separator material rather than in a free-flowing liquid form. Fullriver batteries are non-spillable electric storage batteries. They are excepted from the requirements of DOT's hazardous materials regulations, since they adhere to the requirements of code 49 CFR Section 173.159(D) - (CLASSIFIED APPROVED: DOT, CFR, HMR49, IATA, ICAO67, IMDG27)